



Review

Sustainable tourism and business: Their interrelated relationship as a tool for reactivating the Caiafa Lake area and its impact on the resilience, management and financial development of local regional area

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This article assesses the sustainable regeneration of Tourism Business and Administration Activities in zones with unique and fragile natural environments. This research aims to reinforce the perception ability after the identification and recognition of the main elements of a protected and degraded area to revitalize its environment and create new potential dynamics for the Tourism sector. The coastal fronts such as Caiafas Lake area are experiencing a slow decline and fragmentation due to climate change and financial crisis. As a result of the problematic conditions unique environments with dynamic potential are facing a landscape fragmentation with high risk of loss of identities and local cultures. In addition to this the existence of thermal springs water could give a healing character that could reinforce the visitors interest .

Keywords: Business and Administration, business development in tourism , landscape development, landscape management, sustainability, sustainable tourism, Tourism management and administration.

INTRODUCTION

Wetlands have always been areas of particular importance for both the enrichment and impact on the local natural environment of an area and for the improvement of the human environment's well-being. According to the first article of the Ramsar's Convention on Wetlands: "Wetlands are areas of marsh, fen, peatland, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish, or salt, including areas of marine water the depth of which at low tide does not exceed six meters." People have to be convinced that wetlands constitute a fundamental resource of high economic, cultural, scientific and recreational value, the loss of which would be irreparable (02/02/1971, Ramsar, Iran Convention on Wetlands of International Importance

especially as Waterfowl Habitat). Caiafa's Lake is a protected wetland whose location is defined in the Peloponnese and, more specifically, in a coastal area in the southern part of the Prefecture of Ilia. The case of this area presents a multitude of particular identities with an important role that fails to be merged to form a single and strong brand that will make the area a unique paradise of ecotourism and economic well-being of the Peloponnese region.

Historical Value

Historical findings as shown a location relevant to the historicity of Ancient Olympia and Greece in general, as it

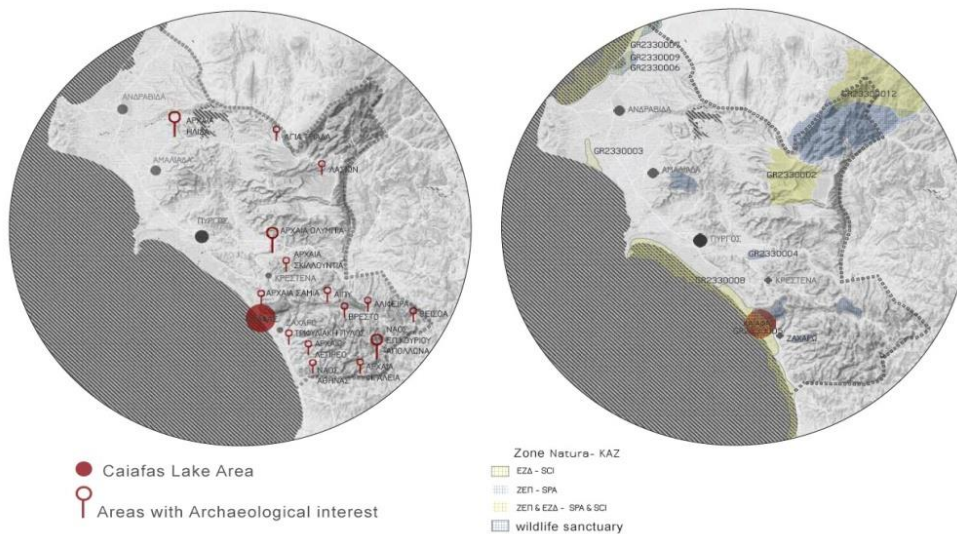


Figure 1: Map of Caiafas Lake. Historical and Environmental map.



Figure 2: Report from Directive 2006/7/EC for water's quality on Caiafa's Lake

used to be a holiday destination for the Olympian Gods (Golfi, 2017). The Historical presence of thermal baths in the Lake, as main feature make their appearance from antiquity with the appearance of two springs, the Anigris Nymphs and the Atlantis Nymphs (Bakopoulou, 2012). The area presents exceptional geomorphological beauty, as it is located on the coast front of the Municipality of Zacharo City and has been surrounded by mountains and caves since antiquity; a historically strategic location due to the thermal springs, the existence of successive forest areas and the coastal natural environment (Figure 1).

Recognition as a Natura2000 area

In 2013, Caiafa's Lake was included in the National Natural 2000 list for the natural biodiversity of its flora and fauna. The area's natural landscape is the main protagonist, creating a unique aquatic ecosystem (Figure 2) with an area of about 200 hectares and a union of the sea area, the Lake and the forest with the help of natural corridors (Figure 3).

The local annual climatic conditions have proven to be ideal for the survival of endangered flora such as reed belts, Tamarix forests and the aquatic species cladium tamariscus (Vekios et al., 2010). Dunes in sequential arrangement with a unique variety of shapes, sizes and vegetation harmonize with the forest of Strofilia, composing the existence of a separate ecosystem that is a place of rejuvenation and protection of migratory birds, reptiles and aquatic organisms. In addition to the intense natural landscape that is enclosed in the Caiaphas zone, it presents a unique medical background which is due to the beneficial properties of the thermal baths, such as those related to human muscles, skin diseases and lung problems through the high levels of iodine produced by water vapour inside the caves of the area.

Environmental Fragmentation

With the arrival of the 21st century, the landscape of Caiaphas Lake and the coastal front are experiencing a slow



Figure 3: Lake view & Forest, photo by author



Figure 4: Abandoned thermal springs area, photo by author



Figure 5: Abandoned old hotel complex area, photo by author.

decline and fragmentation (Figures 4, 5, 6) due primarily to climate change, severe weather and the dramatic fires of 2007, which led to its rapid fragmentation. Secondly, the

economic crisis does not allow financial resources to be secured to develop infrastructures. In this phase, the role of a landscape architect can provide the opportunity for



Figure 6: Abandoned old hotel complex area, photo by author



Figure 7: Hotel Complex Olympia in Caiaphas Islet, photo by author

synthesizing strategic planning and a forecasting model. Through the collection of historical and sociocultural data and the climate data of the area but also the designing skills, the landscape can acquire sustainable resilience by combining a dynamic interconnection with the city of Zacharo. These are scientific tools to develop a model of ecotourism interest, which will strengthen the local economy and awaken the inhabitants' consciousness and continuous participation.

Hotel Facilities on the islet Agia Aikaterini, Caiaphas Lake

On the islet surrounding Caiaphas Lake, accommodation complexes used to be holiday resorts for visitors worldwide. In detail, the hotel facilities that operated in the past were the following. "Hotel Olympia"(Figure 7), a two stars hotel with a capacity of 18 rooms and 34 beds. "Hotel

Geranio" with a capacity of 46 rooms and 77 beds. "Arini Hotel" with a capacity of 37 rooms and 101 beds. "Paea Laika-Xenon A" with a capacity of 20 rooms and 56 beds, and "Nea Laika-Xenon B" with a capacity of 19 rooms and 50 beds (Figure 8). The abovementioned accommodation structures were, in the past, a factor in the economic and tourism development of the broader area of Ilia in the Peloponnese as they enjoyed the unique ecological beauty of the area in total around 318 people per day in days of 100% capacity.

Since the worldwide economic crisis of 2000s began, the area began to deteriorate rapidly. There were no longer the appropriate financial resources for maintaining, operating and developing the hospitality businesses and preserving the area's unique natural environment. This situation turned into a real business and natural jewel of Peloponnese in a region that is currently trying to revitalize itself with all the bureaucratic difficulties. Today the



Figure 8: Hotel Complex Palea Laika Xenon A&B in Caiaphas Islet, photo by author

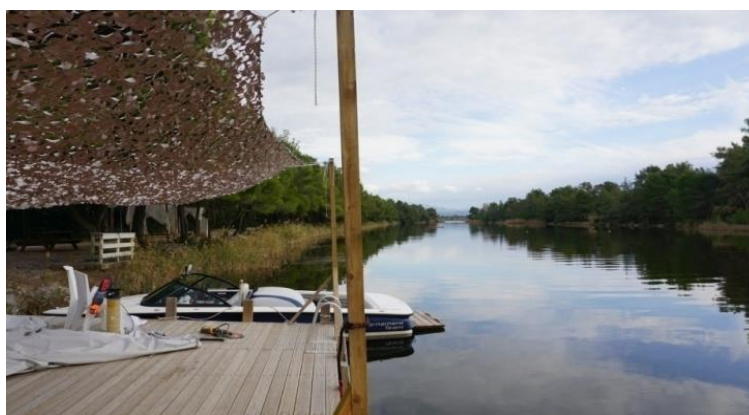


Figure 9: Lake view from the wooden deck, photo by by author

Hellenic Public Properties S.A (The Hellenic Public Properties Co.,HPPC) is responsible for managing the greater area of Lake Caiaphas, its coastal frontal zone and the Therapeutic Caiaphas Springs Unit. This Greek public company(HPPC is the company for the management and development of the private real estate assets of the Greek State and constitutes a 100% direct subsidiary of the Hellenic Corporation of Assets and Participations, HCAP) is trying to create long-term financial and sustainable property development through international tenders and international fund invitations.

Hotel complexes as a hub of socioeconomic interests

The five different hotel complexes had the advantage that while they coexisted in the exact location, they offered prices that could be affordable both to visitors with low-income criteria and to those visitors who wanted a luxurious hospitality experience. Therefore, offering touristic products with various price lists allowed

accessibility to a wide range of visitors. On the one hand, this positively affected maintaining high occupancy rates throughout the year. Still, the most important thing was that through this coexistence, people came into contact, exchanged cultures, and created social relations with the mutual aim of enjoying a unique natural environment that gave them an experience inside an environment with exceptional biodiversity. This model of living of people with different socioeconomic interests in a "well-being" environment like the Caiafas area could exemplify a social development of poor conditions in national and international urban and peri-urban landscapes.

Variety of activities in Nature

The islet of Lake offers an outdoor area where until today, people have the opportunity to organize activities in Nature[in situ research]. Among the various green corridors of the forestland of the islet, there are wooden houses where the visitor can enjoy the natural landscape of



Figure 10: Thermal Springs main Building and pool area, photo by author.



Figure 11:Thermal Springs main Building and pool area, photo by author

the zone from a higher altitude and enjoy bird watching activities. There are floating wooden platforms around the rest area as small boat parking (Figure 9). These boats enrich the activities in the internal area of the Lake. Fishing trips, water excursions, and scuba diving are some water activities each visitor can have in Caiaphas Lake during the whole day of the vacation. The combination of sports activities inside an eco-touristic destination such as Caiaphas Lake promotes a sustainable model of holidays that can be a strategic factor for sustainable financial and business development for the whole area.

Historical Value of Thermal Springs

Some springs whose water has a high content (over one g/l) of dissolved salts or gases and a water temperature higher than that of the environment are characterized as medicinal (Bafiti, 2013). From long-term practical experience, they are attributed to therapeutic, soothing or preventive properties against various diseases (Spathi, 2000). Alternatively, thermo metallic springs are used to describe springs with the above characteristics in terms of the water composition or their temperature but without

being associated with an established (under the conditions mentioned above) therapeutic action (Kabil and Banerjee, 2014). The boundaries of the two concepts are confused. Some may refer to some sources as thermal and others as thermo metallic since the criteria for their separation are based to a significant extent on empirical observations (Figures 10 and 11).

Usually, hot springs are created when surface water from rain, snow or even the sea passes through pores or cracks in the ground and is collected in reservoirs or underground reservoirs (Bafiti, 2013).. When the appropriate geological conditions are formed from these reservoirs, the water is channelled to sources on the earth's surface. Due to its prolonged contact with various rocks, during its storage or journey, the water is finally enriched to a significant extent with metal ions (Bafiti, 2013). The importance of thermal springs has been recognized since ancient times. They exist worldwide and are an essential incentive for thermal tourism. The therapeutic use of the thermal springs' water can be accomplished by drinking, bathing or inhaling the vapours (Li and Yang, 2018).

The evidence shows that the Ancient Greeks were among the first people to study and exploit thermal springs. There



Figure 12. Thermal Springs area, photo by author

were public baths from the archaic period called 'balaneia'. The oldest known balaneia' was in Olympia and existed from the middle of the 5th century BC and, later, the 'balaneia' of Dikoulos in Athens (Albanou-Albatzi, 2001). The remarkable growth of the 'balaneias' is observed from the fourth to the first century BC. The most important are Athens, Eleusis, Mycenae, Gortyna of Arcadia and Delos. Outside the Greek area, numerous 'balaneias' existed in Egypt during the Hellenistic period, while Syracuse in Sicily and Colophon on the coast of Ionia were also well known. However, some 'balaneias' were connected to thermal springs, but most of them used ordinary water heated in copper boilers (Albanou-Albatzi, 2001).

While in the 'balaneia' in the Asklepiia, the water was associated with a therapeutic effect intended to calm and indulge the bather. Asklepiia were centres of worship of the God Asclepius and places of healing for the sick. The treatment combined the mystical part with medical practice. The ancient Asklepiia in Greece were Trikki in Thessaly, Titani in Corinth, Telfoussa in Arcadia and Epidaurus in Argolis (Falagas et al., 2009). The Asklepiion of Epidaurus was the most important in the classical and later times, with a number of its remains located in a large area of the Mediterranean from Pergamos, Kos, Athens, Messina, and even to Rome (Labrinoudakis, 2001). An essential role in the therapeutic process seems to have been played by the baths, usually connected to thermal springs, the gymnasiums and the natural environment, which, as a rule, combined beauty with suitable climatic conditions (Papagianni et al., 2007).

The first reference to thermal springs is made by Herodotus, who points out the therapeutic value of baths and indicates the appropriate season and duration. Later Xenophon mentions in Greek the hot springs of Lechaio in Corinth. However, other ancient authors have limited references to thermal baths, such as Aristotle, Strabo, Plutarch, Lucian, Polybius and Pliny. Pausanias, the

Traveller, mentions the sources of the Anigros River in Triphylia as well as the "mineral waters" of Ionia. Arrian in "Alexandrou Anavasis' refers to a thermal spring that coexisted with the oracle of Ammon Zeus. It was located in an extensive desert oasis on present-day Libya's borders. The spring's water had healing properties and showed large temperature fluctuations during the twenty-four hours since it was almost freezing at noon and very hot at midnight (Figure 12). The spring was probably brackish (with water rich in sodium chloride) since there were deposits of crystalline salt around its flow. Greece is considered relatively rich in thermo metallic and thermal springs compared to its area. There is no official recording or recognition of all sources (Papageorgiou, 2010). According to one study, more than 750 springs have been recorded in Greece, 114 of which are in the Peloponnese, 179 in Central Greece, 57 in Thessaly, 56 in Epirus, 115 in Macedonia, 25 in Thrace, 72 in the Aegean islands, 34 in the Ionian Islands and 100 in Crete (Papageorgiou, 2010) of these, 180 are utilized for bath therapy, 148 for posit therapy, and 20 for combination (Migardou, 1998). Another study identifies 470 thermo metallic springs (Albanou-Albatzi, 2001), the most significant percentages of which are found in Central Greece (19.4%), the Western Greece Region (13.9%) and Thessaly (10.3%) and 93 thermal springs, most of which are located in Western Greece (18.3%), Central Greece (14%), and the South Aegean Region (10.7%). Most of the hot springs are located in coastal areas of the mainland and island country. In the lowland inland, their presence is much rarer, while their number is small in the mountainous areas (Papageorgiou, 2010).

Medical Importance of Thermal Springs in Caiaphas Lake

Pausanias, the traveler, mentions that patients with skin

diseases visited the banks of the Anigrù River, in the cave of the Anigrù nymphs - i.e. in today's Baths of Caiaphas - (Papagianni, 2007). According to today's understandings, the Caiaphas baths are considered to have a beneficial effect on diseases of the joints, the skin, and the female reproductive system, as well as cholelithiasis or reduced motility of the digestive system (indigestion, constipation) (Dianeosis, 2019). Next, the possible biological role of the individual components of the source water is examined based on existing scientific knowledge (Figure 12).

The main indications for spa therapy are chronic diseases that have not been possible to treat with drugs or other therapeutic methods (Smith et al., 2008). Such ailments mainly concern the connective tissue (rheumatism), the digestive, respiratory and circulatory systems, and the female reproductive system. It is also recommended as an adjunct to recovery from acute severe illnesses or injuries. Depending on the water's physical properties and chemical composition, each spring has some of the indications above (Loeper et al., 1978).

Hyperthermic springs are usually poor in dissolved salts and base their action mainly on their high temperature. They are recommended for external use to treat allergic conditions (arthralgia or neuralgia) or diseases associated with spasms of hollow organs, such as the digestive or genitourinary.

Drinking the water of acidic springs helps in cases of achlorhydria, i.e. reduced production of gastric fluid from the stomach. Baths in such sources are recommended for the treatment of skin diseases as well as diseases of the arteries (Szabo and Papapetropoulos, 2017). Drinking the water of the alkaline springs is indicated in the exact opposite case, i.e. when the gastric fluid creates a problem, such as in a peptic ulcer or hiatal hernia (Altman, 2000).

Sulfuric springs are usually associated with some volcanic activity. Their water contains free hydrogen sulphide, sodium or alkaline earth sulphides (mainly calcium, magnesium, strontium and barium) and their secondary products. In the area where they are gushing, there is a strong smell of hydrogen sulphide. Hydrogen sulphide has a strong antimicrobial effect and irritates the mucous membranes causing expectoration, i.e. liquefaction of secretions (Costello et al., 2016). Therefore, inhalation of vapours from such sources - with or without a bath - is recommended for upper respiratory ailments. The water of the calcareous springs has a remarkable laxative effect; for this reason, some recommend it as an aid in treating obesity (Altman, 2000). In addition, the mud derived from such waters is widely used in countries such as France, Italy and Japan for treating skin and rheumatic diseases. Because sulphate salts oxidize upon contact with atmospheric oxygen, it is recommended that water containing them be used immediately upon leaving the source (Altman, 2000).

Calcium sulphate is said to have a soothing effect on the overall body when contained in a bath. While taken internally, it promotes the secretion of bile and aids in the digestion of food. The other sulphates have a similar effect.

Bathing in waters containing magnesium sulphate

improves skin firmness (Altman, 2000).

The high sodium chloride content in the water of the springs has been claimed to be helpful, as a bath, in the treatment of degenerative osteoarthritis, neurological diseases and certain diseases of the female reproductive system. Drinking them is considered to increase appetite, improve digestion and prevent constipation, but it is not recommended for people suffering from hypertension and heart or kidney failure (Altman, 2000). Drinking the water of some thermal springs is thought to have a diuretic effect and can help expel kidney stones. In many cases, a measurable content of trace elements is found in the water of thermo-metallic springs, i.e. elements found in the human body in small quantities but considered to be able to affect various functions or the course of certain diseases (Aslami et al., 2009).

Conclusion

This publication aims to bring back to the surface of the research field an area that combines the following elements: unique natural environment, historical background from antiquity, hospitality infrastructure as a paradigm of an ecotourism model and therapeutic medical properties. It is a set of characteristics that, over the years, were put on pause and tend to disappear due to abandonment and degradation and the social and economic anomalies of the time. The methodology used on the present research publication required a continuous participant observation, with surveys on spot and collection of Archival studies and scientific documents. However, as expected, this should be combined with sustainable business and economic development. The lack of correct decisions at the economic and business level is the main reason why a strategic plan for the consolidation of the property constitution should be established and then with the help of experienced managers of different scientific fields to be able to give off the brightness it has been unable to acquire for so many years. The variety of hospitality structures not only offered a different and numerous provision of services to visitors with high and low-income characteristics but did they manage to be a pole of attraction and connection of societies that, while they were economically different in front of the greatness of a purely natural environment, created sociability and creative exchange of cultural ideologies. Especially today, this atmosphere of the past would mean a lot for the upgrading, development and revitalization of the local cultural and economic heritage. The healing character of the thermal springs is a concept that can attract visitors worldwide. The Caiaphas' spring water contains many components, most showing documented or supposed biological effects on the human body. In at least some cases, they can positively influence the course of certain diseases. Undoubtedly, the fact that the source has all these very different ingredients, combined with the long empirical tradition of its therapeutic value, makes it an exciting field for future scientific research.

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